

REMARKS

Claims 26, 32 and 42 have been amended to attend to the informalities noted by the Examiner in paragraph 1.

Claims 26-45 and 48 are pending in the application.

The rejection of claim 26, 27, 34, 42 and 45 under 35 U.S.C. 103(a) as being unpatentable over Cowan 6,031,830 in view of Brody 6,278,697 is respectfully traversed.

The present invention is directed to a system and method for making better use of license allocations of broadband frequencies for use in LMDS implementation. It allows base stations to communicate over an intercell link using one of the frequencies allocated for base station to Network Interface Units (NIU) communications. Because the intercell link simply applies one of the already licensed frequencies, it is easy to add links without them having to obtain separate licenses, e.g.; the system is scaleable.

Claim 26, in addition to being amended to incorporate the Examiner's suggested corrections, has been amended to recite that the network interface units (NIU) are at a customer site within the cell and that each network interface unit has a highly directional antenna. In addition, the claim recites that the network interface unit comprises an ATM multi-service station switch equipped with radio interface cards for providing wireless communications between the base station and the NIU via the highly directional antenna and

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a second one of the radio interface card providing point to point intercell radio links.

Clearly, neither reference teaches or suggests such an interface system. In Cowan, as well as in Brody, there is no highly directional antenna. All the antennas appear to be omnidirectional.

Claim 42 is a method claim and includes the limitation of providing a directional antenna for each multi-service switch to provide point to point bidirectional communication between base stations or a radio intercell link. Clearly, no such step is shown or suggested by the references cited. Providing a network manager in association with at least one of the base stations for configuring the radio interface cards is not taught or suggested by these references.

In Cowan, base stations 26 are connected to each other or a local area network 24 along with other lan devices and a host 30. Communication with the mobile terminal 36 is via the link between the wireless base station 28 which in turn communicates with the base station 26. As stated in Cowan's Abstract, "the host computer and the at least one mobile device are operatively configured to communicate selectively mobile device operating software therebetween based on an initial comparison in accordance with a predetermined criteria indicative of whether communication of mobile operating software therebetween is appropriate."

Regarding claim 45, it should be noted that in Brody, and in Cowan, there does not appear to be fixed user sites - all the users appear to be mobile terminals (36 in Cowan and 34, 54 and 52 in Brody). Moreover, the combination of the two references is not dictated by what each discloses but solely by the requirements of applicants' claims. In other words, the Examiner has used applicants' disclosure and teaching as a map to search the prior art and extract therefrom various bits and pieces to assemble into applicants' claimed invention - hindsight reasoning at its best.

Claim 28, 29, and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan and Brody further in view of Jaisingh 6,009,096 and this ground of rejection is respectfully traversed. While though not part of the rejection, the Examiner has a paragraph on page 6 of the Office Action which refers to Raychaudhuri 5,638,371 and clarification on this point is requested.

In the next paragraph regarding the ring configuration recited in claim 32, the ring configuration is characterized by "wherein one of the base stations is connected to said ATM network and the network manager, and each of said other base stations is in bidirectional communication with said one base station over inter-cell radio links." This is not taught or suggested by the reference or any combination thereof.

Claim 33 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan and Brody further in view of Acampora

6,049,593. This ground of rejection is respectfully traversed. Claim 33 depends from claim 27 and specifies that the intercell radio link between respective base stations is in a mesh configuration. Acampora is directed to a hybrid universal broadband telecommunications system using free-spaced optical links to interconnect to radio cells. An optical link is not a radio link.

Claims 30, 31, 35, 39 and 43 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan and Brody further in view of Smith 5,432,780. This ground of rejection is respectfully traversed.

Claims 30, 31 and 35 relate to the sectorized antenna for communicating with each of the network interface units located in each sector within its cell. Smith deals with a cell site for a mobile phone system - not a broadband wireless system. The network interface units which would naturally be a user in the mobile unit would not have high directional antennas pointed at the base station for bidirectional communication therewith, a way of point to point protocol. It is clear that this section of Smith combined with Cowan and Brody is dictated solely by applicants' disclosure and not by what the each individual references teach or suggest to those skilled in the art.

Claims 36 and 37 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan, Brody and Smith further in view of Raychaudhuri 5,638,371. Claim 36 is directed to the ATM backbone for providing broadband wireless service to the network interface

units and claim 37 is directed to the network manager for receiving configuration parameters respecting the first and second radio interface cards. In Cowan, Brody, Smith and Raychaudhuri, the user stations all are mobile units which do not have highly directive antenna systems. || ←

Moreover, claim 45 calls for a scaleable system in that the ATM backplane and one of the base stations is constituted by a plurality of ATM radio interface cards having implementing protocols for bi-directionally linking with the ATM backplane. The ATM radio interface cards are adapted to operate on a multiple access protocol to provide point to point radio access between the base stations and the system can be scaled by adding cards to the ATM backplane as required to meet demand. No such teaching or suggestion is found in Cowan or Brody or in the secondary references. |

Claim 28, 29 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan and Brody further in view of Jaisingh 6,009,096. This ground of rejection is respectfully traversed.

The failings of Cowan have been noted by the Examiner and have been discussed extensively above. These references do not teach the invention defined by these claims.

Claim 33 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan and Brody further in view of Acampora 6,049,593. The combination of Cowan and Brody is faulty for the reasons given above.

Claim 38 depends from claim 37 which in its turn depends from claim 36 which in its turn depends from claim 35 which in its turn depends from claim 34 and thus includes the limitations previously discussed which avoid the art cited. Moreover, it is clear that the combination of Cowan and Brody and Smith and the IEEE article of 1989 by Vary clearly uses applicants' claim as a guide to select different items and features from different references to meet applicants' claim language. While these references may include the features which are recited by the Examiner (and applicants do not agree that they do), the combination is hindsight restructuring of the art. || ←

Claim 40 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan, Brody, and Smith further in view of Jaisingh 6,009,096 and this ground of rejection is respectively traversed. Claim 40 specifies that the base station radio intercell link is in a ring configuration as discussed extensively above. Claim 34 recites that the network interface units have highly directional antenna for providing point to point intercell radio links with the base station in a neighboring cell and this is not the case with these references.

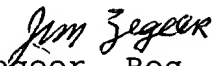
Claim 41 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan, Brody, Smith and Jaisingh further in view of Acampora 6,049,593 and this ground of rejection is respectively traversed for reasons given earlier above.

Claim 44 depends from method claim 42 and specifies that the network manager configures the radio interface cards with respect to operating frequency, modulation rates, forward error correction values, and transmission power levels. Again, the Examiner has taken certain attributes out of four different references, related the selected components with applicants' terminology to come up with the finding of obviousness. Manifestly, this is not proper and applicants respectively traverse the rejection.

Claim 48 depends from claim 45 and specifies that one of the base stations includes the ATM backplane and a network manager for configuring the operating frequencies... Since claim 48 depends from claim 45, and claim 45 has been discussed extensively above and why Cowan and Brody do not satisfy or make obvious the elements of the claim 45, same goes for respective claim 48. Moreover, the Vary IEEE paper does not make up for the gaps in the teachings of Cowan and Brody.

In view of the above, further and favorable reconsideration is respectfully requested.

Respectfully submitted,


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In the event this paper is deemed not timely filed, the applicant hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 26-0090 along with any other additional fees which may be required with respect to this paper.